MB QUART
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POWERED BY MAXXSONICS

N A U T I C

6-Channel Amplifier NAA 665
6-Kanal Verstärker NAA 665

Installation & Operation
Einbau und Betrieb

Congratulations!
By purchasing an amplifier from MB QUART, you have decided on a product of the highest technical quality. MB QUART wishes you great enjoyment with your amplifier. Should you have any questions about this system or other MB QUART products, please call us personally or send us an e-mail at info@mbquart.de

Herzlichen Glückwunsch!
Mit dem Kauf eines Verstärkers aus dem Hause MB QUART haben Sie sich für ein technisch qualitativ hochwertiges Produkt entschieden. MB QUART wünscht Ihnen viel Spaß mit Ihrem Verstärker. Sollten Sie Fragen zu diesem oder anderen MB QUART Produkten haben, freuen wir uns über Ihren persönlichen Anruf oder eine E-Mail an info@mbquart.de

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WARRANTY

As the manufacturer of MB QUART car audio products, Maxxsonics USA Inc. and Maxxsonics Europe GmbH warrants to the original consumer purchaser the amplifier to be free from defects in material and workmanship for one (1) year from date of purchase.

This product meets the current EU minimum warranty requirements, if purchased in countries of the EU.

To ensure your warranty policy keep your original receipt proofing the date of purchase.

All other part and accessories of the system are warrantied to be free from defects in material and workmanship for one (1) year from date of purchase. Maxxsonics will repair or replace at it's option and free of charge during the warranty period, any system component that proves defective in materials and workmanship under normal installation, use and service provided that the product is returned to the authorised MB QUART dealer from where it was purchased.

A photo copy of the original receipt must accompany the product being returned. In the absence of the above, the warranty is one (1) year from date of manufacture.

Any damage to the product as a result of misuse, abuse, accident, incorrect wiring, improper installation, alteration of date code or bar code labels, revolution, natural disaster, or any sneaky stuff because someone messed up, repair or alteration out side of our factory or authorised service centers and any thing else you have done that you should not have done is not covered.

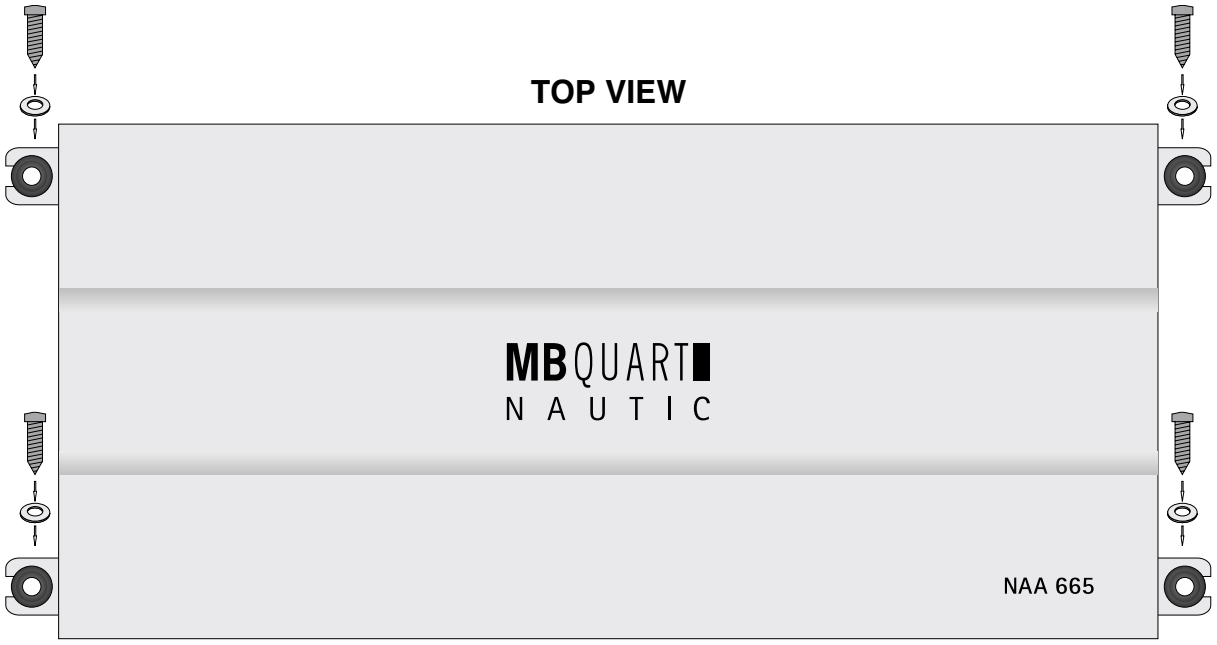
This warranty is limited to defective parts and specifically excludes any incidental or consequential damages connected therewith. This warranty is not to be construed as an insurance policy.

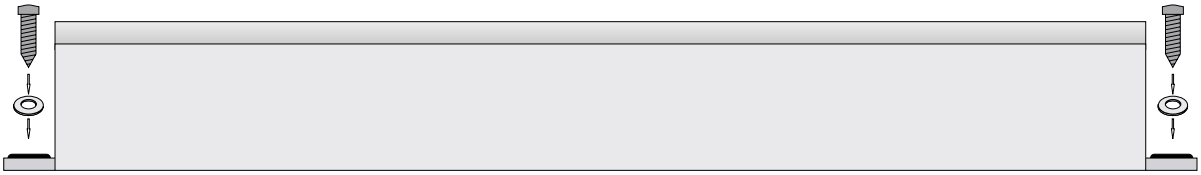
Warranty on installation labor, removal, re-installation and freight charges are not the responsibility of Maxxsonics USA Inc. or Maxxsonics Europe GmbH.

Mounting directions

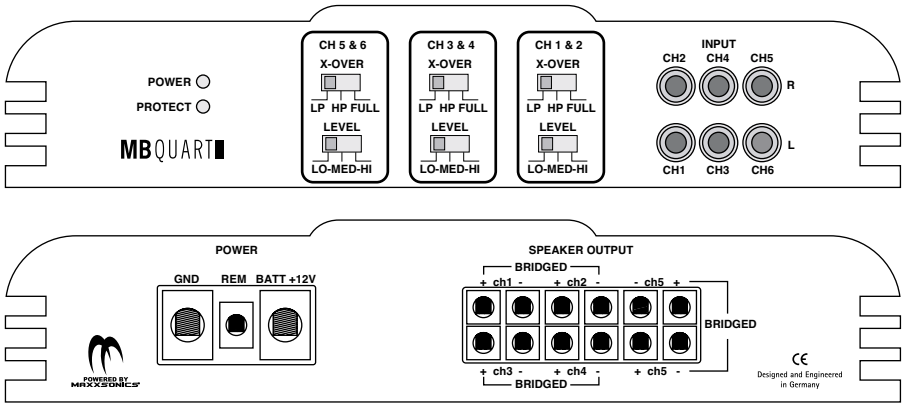
1. Choose a mounting location away from direct exposure to water. We recommend that you stay as close to the marine battery as possible to keep the power and ground cables as short as possible.
2. Use the stainless steel mounting screws and washers provided to securely fasten the amplifier.
   CAUTION: Be sure there is adequate room (1" clearance) behind the chosen mounting surface for the mounting screws to protrude.
3. The rubber mounting buffers are designed to help absorb vibration.

English





NAA 665 6-Channel Amplifier



X-OVER (CROSSOVER) SWITCHES
The X-Over switches allow you to control the fixed crossover slopes for each group of paired channels (1 & 2 / 3 & 4 / 5 & 6)
- LP: Low Pass plays 100Hz / 24dB & below
- HP: High Pass plays 100Hz / 12dB & above
- FULL: Full Range plays all frequencies controlled by the Radio/CD player

LEVEL CONTROL
The LEVEL control switches allow you to selectfixed unbalanced (RCA) input sensitivities provided by your Radio / CD player
- LO: Low accepts unbalanced input from 0.2V to 2.5V
- MED: Medium accepts unbalanced input from 2.5V to 4V
- HI: High accepts unbalanced input from 4V to 6V

POWER / PROTECT INDICATORS
POWER: The Power light will illuminate blue to indicate that the amp is "ON" and ready to play
PROTECT: The Protect light will illuminate red to indicate that the amp diagnostic circuit has detected a fault and the amp will not play until the problem is resolved. Here is a list of Faults that will cause the amp to shut down and go into the PROTECT mode.
- THERMAL: The internal components reach a temperature above their allowed safe operating temperature range.
- SHORT CIRCUIT: Pinched or shorted speaker lead, shorted speaker voice coil or shorted passive crossover provided with the component speakers.
- OVER-LOAD: Operating below proper operating impedances (4-Ohms & 2-Ohms stereo and 4-Ohms mono bridged).

INPUTS
There are 3 sets (channel 1-2 / 3-4 / 5-6) of unbalanced (RCA) low level inputs which will allow for complete control of front / rear fade & left / right balance. Be sure to use high quality shielded RCA audio cables for maximum signal transfer.

POWER / GROUND
This amplifier requires high quality 4 gauge power and ground cables.

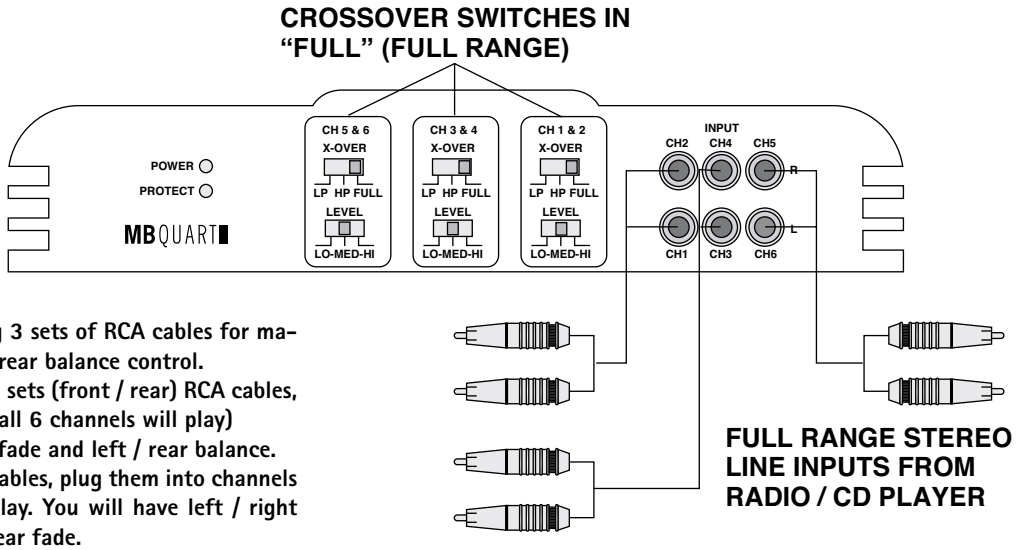
REMOTE
The remote wire turns the amplifier on and off via the Radio/CD player "remote output" wire.

SPEAKER OUTPUT
The molded speaker terminals accept 18 gauge to 12 gauge speaker wires. We recommend 16 to 18 gauge high quality speaker wires for full range speakers and 12 to 14 gauge
for subwoofer applications.

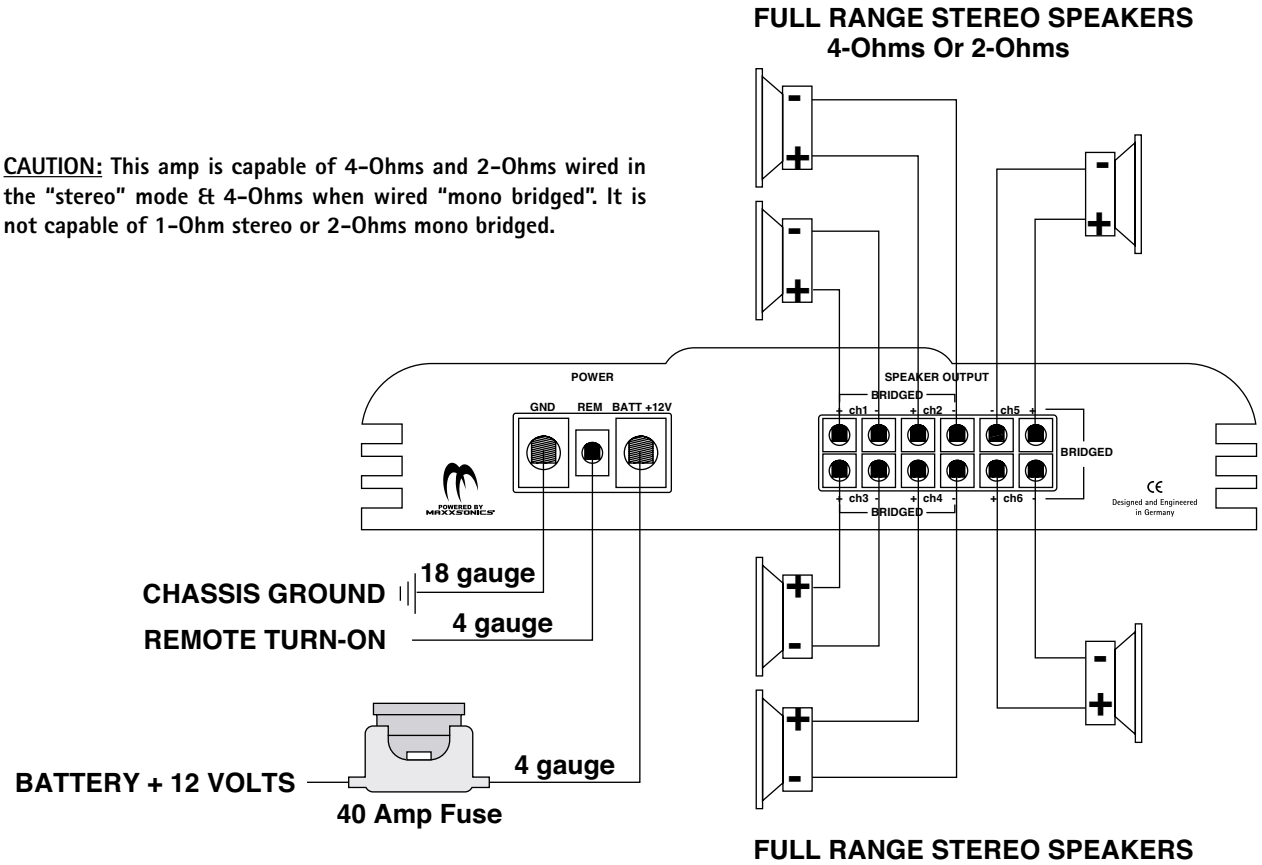
NOTE: To ensure maximum performance and sound quality, please read and the installation and wiring directions on the following pages carefully.

English

6-channel full range stereo



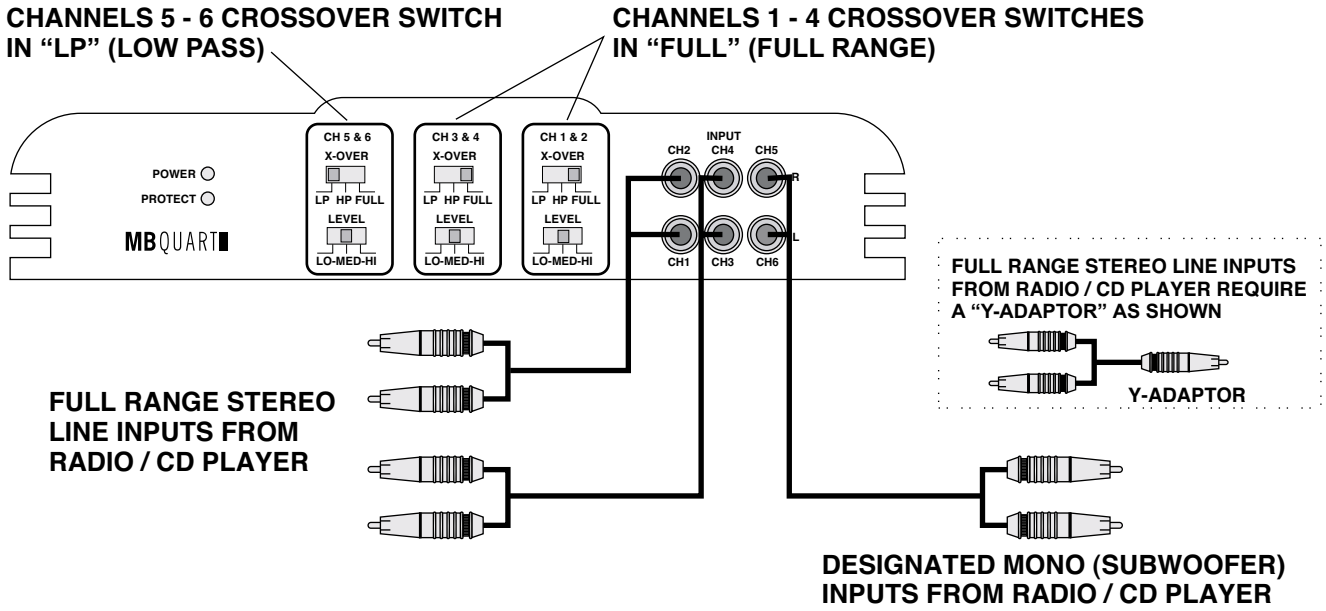
Note: The diagram illustrates using 3 sets of RCA cables for maximum front / rear fade and left / rear balance control.
If your Radio / CD player has only 2 sets (front / rear) RCA cables, just plug them into channels 1-4 (all 6 channels will play) and you will still have front / rear fade and left / rear balance.
If the radio has only 1 set of RCA cables, plug them into channels 1-2 and all 6 channels will still play. You will have left / right balance but will not have front / rear fade.

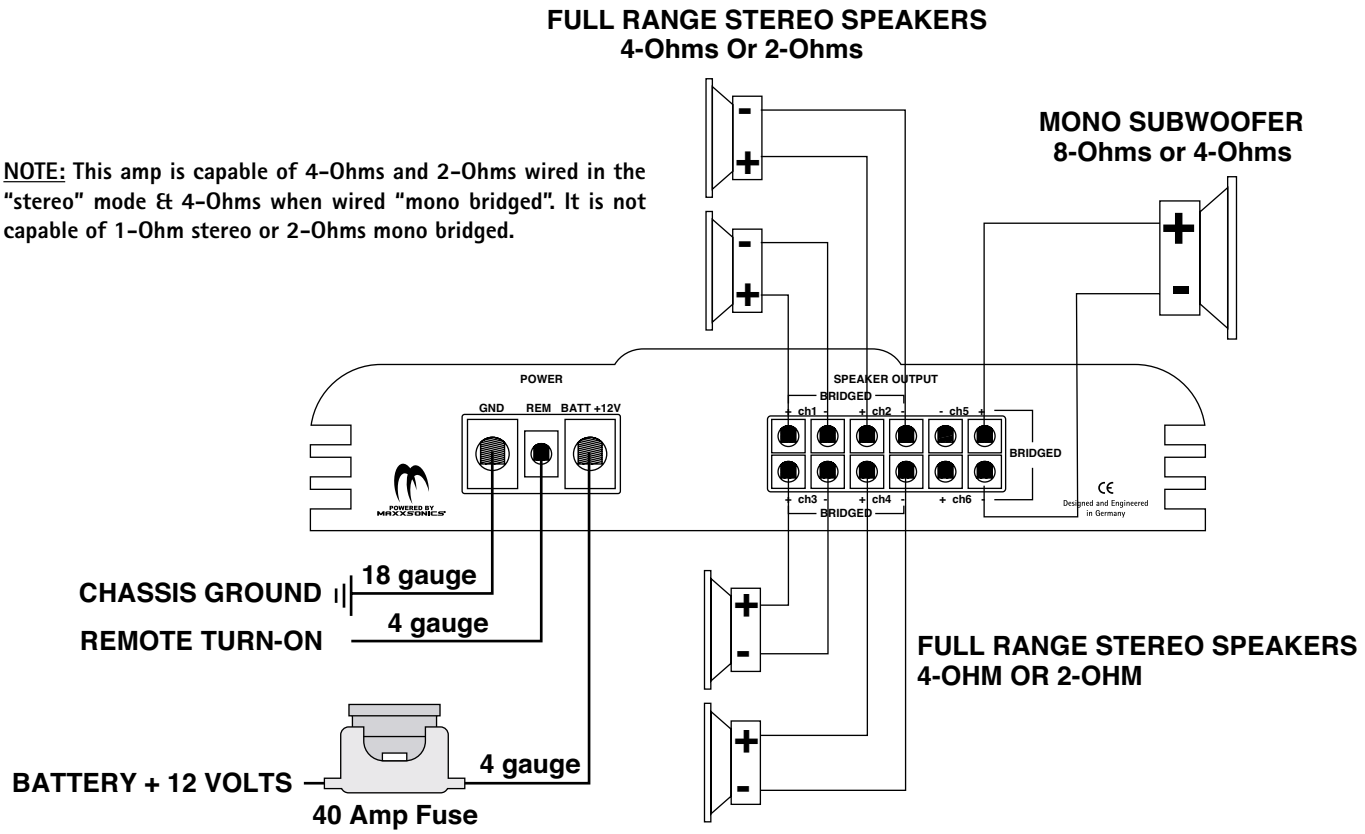


CAUTION: This amp is capable of 4-Ohms and 2-Ohms wired in the "stereo" mode & 4-Ohms when wired "mono bridged". It is not capable of 1-Ohm stereo or 2-Ohms mono bridged.

4-channel full range stereo / 1-channel mono

This diagram illustrates wiring 4 full range speakers wired stereo and a subwoofer wired mono bridged.
Please note position of X-Over switches.


CHANNELS 5 - 6 CROSSOVER SWITCH IN "LP" (LOW PASS)
CHANNELS 1 - 4 CROSSOVER SWITCHES IN "FULL" (FULL RANGE)
POWER
PROTECT
MBQUART
CH 5 & 6 X-OVER
CH 3 & 4 X-OVER
CH 1 & 2 X-OVER
LP HP FULL
LEVEL
LO-MED-HI
INPUT
CH2 CH4 CH5
CH1 CH3 CH6
FULL RANGE STEREO LINE INPUTS FROM RADIO / CD PLAYER REQUIRE A "Y-ADAPTOR" AS SHOWN
Y-ADAPTOR
FULL RANGE STEREO LINE INPUTS FROM RADIO / CD PLAYER
DESIGNATED MONO (SUBWOOFER) INPUTS FROM RADIO / CD PLAYER



NOTE: This amp is capable of 4-Ohms and 2-Ohms wired in the "stereo" mode & 4-Ohms when wired "mono bridged". It is not capable of 1-Ohm stereo or 2-Ohms mono bridged.

Troubleshooting a system

The key to finding the problem in a misbehaving sound system is to isolate parts of that system in a logical fashion to track down the fault.

Description of the Diagnostic system built into all MB QUART amplifiers:
The diagnostic system will shut down the amplifier, until reset by turning the head unit off, and back on. This state of affairs will be indicated by the front panel PROTECT LED lighting up under the following conditions:
1 - A sort circuit on the loudspeaker leads.
2 - An internal amplifier fault that causes a DC offset on the loudspeaker output.

Should the amplifier go into diagnostic mode, simply disconnect all RCA and speaker leads, while keeping +12 volt, power ground and remote leads connected. Now turn the amplifier back on, and if the diagnostic LED lights, the amplifier has an internal fault.
If not, plug the RCA cables back, and reset the amplifier. If it goes into diagnostic now, the fault lies in the input, either with bad cables or source unit.
If the amplifier seems fine with RCA cables plugged in, connect the speakers, one at a time, and if one of the speakers or its wiring is faulty, it will activate the diagnostic system.

Amplifier heatsink overheating:
The amplifiers will shut down when the heatsink temperature reaches 80 degrees centigrade, and turn back on once the unit has cooled down below that point.
Causes of overheating:
1 - Inadequate cooling - relocate or remount to provide better natural airflow over the fins.
2 - Driving high power levels into low impedances - back off on the volume control, and/or make sure you are not loading the amplifier with less than the recommended loudspeaker impedance.

Low output power:
1 - Check that level controls have been set up properly.
2 - Make sure that the battery voltage, as measured at the amplifier's +12 volt and ground terminals, is 11 volts or more.
3 - Check all +12 volt and ground connections.

Fuses blowing:
1 - The use of loudspeaker impedances below the recommended minimums will draw more current - check.
2 - A short on the main +12 volt cable from the battery to the vehicle chassis will cause the main fuse to blow.
3 - If an amplifier fuse blows continually, with only +12 volt, ground and remote leads connected, the amplifier may be faulty.

System does not turn on:
1 - Check all fuses.
2 - Check all connections.
3 - Measure the +12 volt and remote turn on voltages at the amplifier terminals. If these are non existent or low, take voltage measurements at fuse holders, distribution blocks, the head unit's +12 volt and remote leads to localize the problem.

Noise problems: System noise can be divided into two categories, hiss, and electrical interference.

Hiss, or white noise:
1 - High levels of white noise usually occurs when amplifier level controls are turned up too high - readjust according to the procedures in section "Setting up systems after installation for best performance"
2 - Another major problem that can cause excessive hiss, is a noisy head unit - unplug the amplifier input RCA cables, and if the hiss level reduces, the source unit is at fault.

Electrical interference:
The inside of an automobile is a very hostile electrical environment. The multitude of electrical systems, such as the ignition system, alternator, fuel pumps, air conditioners, to mention just a few, create radiated electrical fields, as well as noise on the +12 volt supply and ground. Remember to isolate the problem - first unplug amplifier input RCA cables, if the noise is still present, check the speaker leads, if not, plug the RCA's back, and investigate the source driving the amplifier, one component at a time.

A ticking or whine that changes with engine RPM:
1 - This problem could be caused by radiation pickup of RCA cables too near to a fuel pump or a distributor, for instance, - relocate cables.
2 - Check that the head unit ground is connected straight to the vehicle chassis, and does not use factory wiring for ground.
3 - Try to supply the head unit with a clean +12 volt supply directly from the battery +, instead of using a supply from the in dash wiring/fusebox.

A constant whine:
This type of noise can be more difficult to pinpoint, but is usually caused by some kind of instability, causing oscillations in the system.
1 - Check all connections, especially for good grounds.
2 - Make sure that no speaker leads are shorting to exposed metal on the vehicle chassis.
3 - RCA cables are notorious for their problematic nature, so check that these are good, in particular the shield connections.

Features	NAA 665 6-channel
Output Power Rating *(14.4V battery)*	
4-Ohms	65 x 6
2-Ohms	90 x 6
1-Ohm	No
Mono bridged into 4-Ohms	180 x 1
Miscellaneous Specifications	
Slow unmute at turn on (soft start)	Yes
Damping factor	> 200
Signal to noise ratio (A-weighted)	> 95 dB
THD & N	< 0,05 %
Channel separation at 1 KHz	> 70 dB
Selectable-Fixed input level control	0.2V-6V (LO/MED/HI)
Input impedance	47 Kohm
Power and Diagnostic LED	Yes
Protection:	
DC, short, thermal, overload	Yes
Power supply, all MOSFET PWM	Yes
Audio output, all Bipolar	Yes
Crossover and switching	
Input selector switch	-
Channels 1/2	FULL / HP / LP
Fixed high pass, 12 db/oktave	100Hz & up
Fixed low pass, 24 db/oktave	100Hz & down
Connector types	
Unbalanced inputs (RCA)	
Mechanical	
Molded power terminal	4 GA
Molded speaker terminals	12 GA
Fuse types	ATC
Fuse size	40 amp
Dimensions (length x width x height) inches	17 x 7.7 x 2

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